Michigan Accounts	No. of Lines Yr. End 1995 (Approx.)	Growth in Lines	<u>%</u>	No. Lines Sept. 1996
Carrier A	0	295	100%	295
Carrier B	3,089	1,700	35%	4,789
Carrier C	167	350	68%	517
Carrier D	153	9	6%	162
Carrier E	83	21	20%	104
Carrier F	5,271	1,368	21%	6,639

In 1993, the TM market was recognized as a distinct segment of customers within Ameritech, and functional support responsibilities were assumed by the Ameritech Information Industry Services (AIIS) business unit. This unit focuses its efforts on helping to pursue success for companies that are network or information providers.

Within AIIS, the TMs are supported by several dedicated work groups. One general manager and eight account managers have overall account responsibility for the TMs. The goal of the account team is to help the TM identify new and existing telecommunications applications that can be resold to their end users. The Implementation and Design Service Organization supports the TMs through the management of any service needs and issues. This team coordinates all initial and complex service requests for the TMs and provides an escalation and advocacy role into Ameritech's network organization. Service support is provided via thirteen service managers, two regional service managers, and one network performance manager. The AIIS Service Center located in Wisconsin consists of three managers, 39 service representatives, and six clerks dedicated to handling the over 3,000 requests per month received from the TMs. Additionally, the TMs are provided with direct access into Ameritech's product management functions through the three market managers dedicated to this segment and through a separate Centrex user group.

Since 1993, AIIS has initiated many efforts to improve the level of support provided to TMs. To assist in reducing errors on initial orders, a regional service order form was created for Centrex that provides consistency of information in order formatting. As a result, the quality of initial conversions has improved dramatically, with trouble rates being reduced from 35% to 7% in less than a year. The TM is provided more control over subsequent Centrex feature-related service order activities and can activate, deactivate, or reassign features for end users on an as-needed basis through the use of Centrex Mate. Centrex Mate provides the TM with a front end processor that batch processes changes into the central office switch. In this manner, the TM can not only reduce ordering costs and intervals, they can also receive on-line inventory summaries of features in use by their customers. TMs also can have access into the AIIS electronic mail platform and use

this capability to communicate directly throughout the AIIS organization, keep abreast of changing conditions, and place requests for non-order related services. AIIS has established a web site on the internet for the purpose of providing enhanced access to information for its customers. AIIS has also implemented "report cards" which allow the TM to grade our conversions and the level of sales and service support provided through our marketing organizations. These "report cards" have enabled Ameritech and the TMs to pinpoint areas of concern in providing quality service and strong customer relations and to develop mutually agreed upon corrective action measures and product enhancements.

RESPONSE TO QUESTION NO. 4

COMPANY	NEGOTIATION/TARIFF	SERVICES INCLUDED	BINDING AGREEMENT	AGREEMENT/ TARIFF CITE
USN	Negotiation	See filed agreement U-11182	See filed agreement U-11182	See filed agreement U-11182
AT&T	Arbitrating as part of interconnection agreement	See attached excerpt from attached agreement	N/A	N/A
WinStar Wireless	Negotiating as part of interconnection agreement	See attached excerpt from attached agreement	N/A	N/A
ACI	Negotiating as part of interconnection agreement	Various	N/A	N/A
Sprint Communications	Arbitrating as part of interconnection agreement	See attached excerpt from attached agreement	N/A	N/A
MFS	Negotiating as part of interconnection agreement	See attached excerpt from attached agreement	N/A	N/A
MCI	Arbitrating as part of interconnection agreement	See attached excerpt from attached agreement	N/A	N/A
ACTEL	Currently negotiating resale agreement	Business and residence exchange service	N/A	N/A
Service One Technologies Inc.	Currently negotiating resale agreement	Business and residence exchange service	N/A	N/A
Page Tel	Currently negotiating resale agreement	Residence exchange service	N/A	N/A

RESPONSE TO QUESTION NO. 4

COMPANY	NEGOTIATION/TARIFF	SERVICES INCLUDED	BINDING AGREEMENT	AGREEMENT/ TARIFF CITE
Building Communications Inc.	Currently negotiating a resale agreement for business and residence service. Reselling with Centrex offering	Business, residence and Centrex	N/A	Centrex provided pursuant to tariff and contract
LDMI	Currently negotiating a resale agreement for business and residence service. Reselling with Centrex offering	Business and Centrex	N/A	Centrex provided pursuant to tariff and contract
Coast to Coast	Currently negotiating a resale agreement for business and residence service. Reselling with Centrex offering	Business, residence and Centrex	N/A	Centrex provided pursuant to tariff and contract

performing a certain function or action that affects a Network Element Performance Activity, then such occurrence shall be excluded from the calculation of such Network Element Performance Activity and the determination of Ameritech's compliance with the applicable Ameritech Network Element Performance Benchmark or (ii) only suspends Ameritech's ability to timely perform such Network Element Performance Activity, then the applicable time frame in which Ameritech's compliance with the Ameritech Network Element Performance Benchmark is measured shall be extended on a like-time basis equal to the duration of such Delaying Event.

- 9.10.5 Upon the occurrence of a Specified Performance Breach by Ameritech, MCImetro may forego the dispute escalation procedures set forth in Section 28.3 and (i) bring an action against Ameritech in an appropriate Federal district court, (ii) file a complaint against Ameritech with the FCC pursuant to Section 207 or 208 of the Act, (iii) seek a declaratory ruling from the FCC, (iv) file a complaint in accordance with the rules, guidelines and regulations of the Commission or (v) seek other relief under Applicable Law.
- 9.10.6 MCImetro shall also be entitled to any Credit Allowances pursuant to the same terms and conditions that Ameritech offers Credit Allowances to its Customers, as further described in Schedule 10.9.6.

ARTICLE X RESALE AT WHOLESALE RATES—SECTION 251(c)(4) RESALE AT RETAIL RATES—SECTION 251(b)(1)

10.1 Telecommunications Services Available for Resale at Wholesale Rates. At the request of MCImetro, Ameritech will make available to MCImetro for resale at wholesale rates those Telecommunications Services that Ameritech provides at retail to subscribers who are not Telecommunications Service providers or carriers, as required in Section 251(c)(4) of the Act. Subject to the terms, conditions and limitations set forth in this Agreement, Ameritech will make available to MCImetro for such resale all Telecommunications Services which it offers to its retail Customers, including the following categories of Telecommunications Services (the "Wholesale Resale Services") as more specifically listed on Schedule 10.1:

[Local Counsel: Check Reference to Ohio Tariff]

- (i) Local Service Residence, as described in PUCO No. 20, Part 20;
- (ii) Local Service Business, as described in PUCO No. 20, Part 20;
- (iii) Message Toll Service, as described in PUCO No. 20, Part 20:
- (iv) PBX Trunk, as described in PUCO No. 20, Part 20;
- (v) ISDN Direct Service, as described in PUCO No. 20, Part 20;

- (vi) ISDN Prime Services, as described in PUCO No. 20, Part 20;
- (vii) Ameritech Centrex Service, as described in PUCO No. 20, Part 20;
- (viii) Dedicated Communications Services, as described in PUCO No. 20, Part 20;
- (ix) Inbound Services, as described in PUCO No. 20, Part 20; and
- (x) Customer Owned Pay Telephone Services, as described in PUCO No. 20, Part 20.

The Wholesale Resale Services shall be made available to MCImetro at the rates set forth at Item VI of the Pricing Schedule.

- 10.2 Telecommunications Services Available for Resale at Retail Rates. Ameritech1/ shall make available to MCImetro its Telecommunications Services ("Retail Resale Services") for resale at retail rates in accordance with Section 251(b)(4) of the Act.
- 10.3 Limitations on Availability of Resale Services. The following limitations shall apply to both Wholesale Resale Services and Retail Resale Services (collectively, "Resale Services"):
- retail subscribers, but not to new subscribers ("Grandfathered Services") are listed on Schedule 10.3.1. Schedule 10.3.1 may be revised or supplemented from time to time to include those additional services that Ameritech may, in its discretion and to the extent permitted by Applicable Law, classify as Grandfathered Services. Ameritech agrees to make Grandfathered Services available to MCImetro for resale to any Customer of Ameritech that subscribes to a Grandfathered Service from Ameritech at the time of its selection of MCImetro as its primary local exchange carrier. If a local Telecommunications Service is subsequently classified as a Grandfathered Service by Ameritech, Ameritech agrees to continue to sell such Grandfathered Service (subject to the terms of Section 10.3.2) to MCImetro for resale to MCImetro's Customers that subscribe to such Grandfathered Service at the time it is so classified by Ameritech. Grandfathered Services shall be made available to MCImetro at wholesale rates determined in accordance with the Act. To the extent that Ameritech is unable to provide wholesale systems support and billing within the first ninety (90) days from the date each MCImetro Resale Customer is provided such Grandfathered Service, Ameritech shall

^{1/} To the extent that the Commission finds that this Agreement should include MCImetro's obligations to provide Resale Services under Section 251(b)(1) of the Act, the terms Ameritech and MCImetro should be replaced by Resale Provider and Resale Purchaser, respectively.

or equipment, then MFS shall pay Ameritech a trip charge of \$45.00 per trouble dispatch and time charges of \$18.00 per quarter hour.

10.0 RESALE - SECTIONS 251(c)(4) and 251(b)(1).

10.1 Availability of Wholesale Rates for Resale

Ameritech shall offer to MFS for resale at wholesale rates Ameritech's local exchange telecommunications services as described in Section 251(c)(4) of the Act on such terms and conditions as the Parties may agree in a separate agreement governing such resale.

10.2 Availability of Retail Rates for Resale

Each Party shall make available its Telecommunications Services for resale at retail rates to the other Party in accordance with Section 251(b)(1) of the Act.

11.0 NOTICE OF CHANGES - SECTION 251(c)(5).

If a Party makes a change in its network which it believes will materially affect the inter-operability of its network with the other Party, the Party making the change shall provide at least ninery (90) days advance written notice of such change to the other Party.

12.0 COLLOCATION - SECTION 251(c)(6).

- 12.1 Ameritech shall provide to MFS Physical Collocation of equipment necessary for Interconnection (pursuant to Section 4.0) or for access to unbundled Network Elements (pursuant to Section 9.0), except that Ameritech may provide for Virtual Collocation if Ameritech demonstrates to the Commission that Physical Collocation is not practical for technical reasons or because of space limitations, as provided in Section 251(c)(6) of the Act. Ameritech shall provide such Collocation for the purpose of Interconnection or access to unbundled Network Elements, except as otherwise mutually agreed to in writing by the Parties or as required by the FCC or the appropriate Commission subject to applicable federal and state tariffs.
- 12.2 Although not required to do so by Section 251(c)(6) of the Act, by this Agreement, MFS agrees to provide to Ameritech upon Ameritech's Network Element Bona Fide Request by Ameritech, Collocation (at MFS' option either Physical or Virtual) of equipment for purposes of Interconnection (pursuant to Section 4.0) on a non-discriminatory basis and at comparable rates, terms and conditions as MFS may provide to other third parties. MFS shall provide such Collocation subject to applicable tariffs or contracts.
- 12.3 Where MFS is Virtually Collocated on the Effective Date in a premises that was initially prepared for Physical Collocation, MFS may elect to (i) retain its Virtual Collocation in that premises and expand that Virtual Collocation according to current procedures and applicable tariffs, or (ii) revert to Physical Collocation, in which case MFS shall coordinate with Ameritech for rearrangement of its equipment (transmission and IDLC) and circuits, for which

ARTICLE X RESALE AT WHOLESALE RATES—SECTION 251(c)(4)

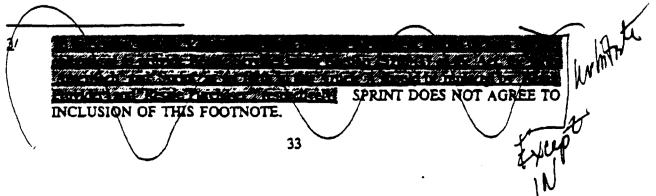
- 10.1 Telecommunications Services Available for Resale at Wholesale Rates. Commencing on the date on which the Commission approves this Agreement, at the request of Sprint. Ameritech will make available to Sprint after resale at wholesale rates those Telecommunications Services that Ameritech provides at retail to subscribers who are not Telecommunications Service providers or carriers, as required in Section 251(c)(4) of the Act. Subject to the terms, conditions and limitations set forth in this Agreement, Ameritech will make available to Sprint for such resale all Telecommunications Services which it offers to its retail Customers, including the following categories of Telecommunications Services (the *Resale Services*) as more specifically listed on Schedule 10.1:
 - (i) Local Service Residence, as described in ILL. C.C. No. 20, Part 4, Section 2;
 - (ii) Local Service Business, as described in ILL. C.C. No. 20, Part 4, Section 2:
 - (iii) Message Toll Service, as described in ILL. C.C. No. 20, Part 9;
 - (iv) PBX Trunk, as described in ILL. C.C. No. 20, Part 4, Section 2:
 - (v) ISDN Direct Service, as described in ILL. C.C. No. 20, Part 17;
 - (vi) ISDN Prime Service, as described in ILL. C.C. No. 20, Part 18;
 - (vii) Ameritech Centrex Service, as described in ILL. C.C. No. 19, Part 5, Section 1 and 2, ILL. C.C. No. 19, Part 6, Section 3, ILL. C.C. No. 20, Part 5, Section 2, and ILL. C.C. No. 20, Part 7;
 - (viii) Dedicated Communications Services, as described in ILL. C.C. No. 20, Part 12, Section 2;
 - (ix) Inbound Services, as described in ILL. C.C. No. 20, Part 10, Section 1, ILL. C.C. No. 20, Part 12, Section 1, and ILL. C.C. No. 19, Part 10, Section 1 and 2; and
 - (x) Customer Owned Pay Telephone Services, as described in ILL. C.C. No. 20, Part 13, Section 2.

The Resale Services shell be made available to Sprint at the rates set forth at Item VI of the Pricing Schedule.

- 10.2 Other Services. Ameritech may, at its sole discretion, and as agreed to by Sprint, make available to Sprint under this Agreement services other than Telecommunications Services (e.g., voicemail) for resale at rates, terms and conditions agreed upon by the Parties.
 - 10.3 Limitations on Availability of Resale Services.

The following limitations shall apply to Resale Services:

- 10.3.1 Any Telecommunications Services which Ameritech offers to existing retail subscribers, but not to new subscribers ("Grandfathered Services") are listed on Schedule 10.3.1. Schedule 10.3.1 may be revised or supplemented from time to time to include those additional services that Ameritech may, in its discretion and to the extent permitted by Applicable Law, classify as Grandfathered Services. Ameritech agrees to make Grandfathered Services available to Sprint for resale to any Customer of Ameritech that subscribes to a Grandfathered Service from Ameritech at the time of its selection of Sprint as its primary local exchange carrier. If a local Telecommunications Service is subsequently classified as a Grandfathered Service by Ameritech, Ameritech agrees to continue to sell such Grandfathered Service (subject to the terms of Section 10.3.2) to Sprint for resale to Sprint's Customers that subscribe to such Grandfathered Service at the time it is so classified by Ameritech. Grandfathered Services shall be made available to Sprint at wholesale rates determined in accordance with the Act. To the extent that Ameritech is unable to provide wholesale systems support and billing within the first ninety (90) days from the date each Sprint Resale Customer is provided such Grandfathered Service, Ameritech shall retroactively apply such wholesale rate as a credit to Sprint and will bill such service to Sprint from its retail billing systems.
- 10.3.2 Any Telecommunication Services which Ameritech currently intends to discontinue offering to any retail subscriber ("Sunsetted Services") are set forth on Schedule 10.3.1. Schedule 10.3.1 may be revised or supplemented from time to time to include those additional Telecommunications Services that Ameritech may, in its discretion and to the extent permitted by Applicable Law, classify as Sunsetted Services. Ameritech agrees to make Sunsetted Services available to Sprint for resale to Sprint's Customers who are subscribers to the Sunsetted Service either from Ameritech or Sprint at the time so classified (subject to the provisions of Section 10.3.1 if such Sunsetted Service was previously classified as a Grandfathered Service) until the date such service is discontinued.
- 10.3.3 Each Party acknowledges that Resale Services shall be available to Sprint on the same basis as offered by Ameritech to itself or to any subsidiary, Affiliate, or any other person to which Ameritech directly provides the Resale Services, including Ameritech's retail Customers and other resellers of Ameritech's Telecommunications Services (i) only in those



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the implementation of INP with the Loop conversion during the sixty (60) minute interval at no additional charge.

9.5.6 If WinStar requests or approves an Ameritech technician to perform services in excess of or not otherwise contemplated by the Line Connection Service, Ameritech may charge WinStar for any additional and reasonable labor charges to perform such services.

9.6 Maintenance of Unbundled Network Elements

If (i) WinStar reports to Ameritech a Customer trouble, (ii) WinStar requests a dispatch, (iii) Ameritech dispatches a technician, and (iv) such trouble was not caused by Ameritech's facilities or equipment, then WinStar shall pay Ameritech a trip charge of \$45.00 per trouble dispatch and time charges of \$18.00 per quarter hour.

10.0 RESALE — SECTIONS 251(c)(4) and 251(b)(1).

10.1 Availability of Wholesale Rates for Resale

"meritech shall offer to WinStar for resale at wholesale rates its local exchange telecommunications services, as described in Section 251(c)(4) of the Act, pursuant to the terms and conditions of the Ameritech Resale Local Exchange Service tariff, until such time as the parties negotiate a superseding resale agreement.

10.2 Availability of Retail Rates for Resale

Each Party shall make available its Telecommunications Services for resale at retail rates to the other Party in accordance with Section 251(b)(1) of the Act.

11.0 NOTICE OF CHANGES — SECTION 251(c)(5).

If a Party makes a change in its network which it believes will materially affect the inter-operability of its network with the other Party, the Party making the change shall provide at least ninety (90) days advance written notice of such change to the other Party.

12.0 COLLOCATION - SECTION 251(c)(6).

12.1 Ameritech shall provide to WinStar Physical Collocation of equipment necessary for Interconnection pursuant to Section 4.0, or for access to unbundled Network Elements pursuant to Section 9.0, except that Ameritech may provide for Virtual Collocation of such equipment if Ameritech demonstrates to the Commission that Physical Collocation is not practical for technical reasons or because of space limitations, as provided in Section 251(c)(6) of the Act. Ameritech shall provide such Collocation for the purpose of Interconnection or

Exhibit 4.7

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in which American's compliance with the American Network Element Performance Benchmark is measured shall be extended on a like-time basis equal to the duration of such Delaying Event.

- AT&T may follower in the accordance of a Specified Performance Breach by Ameritech

 AT&T may follower in the second of the proceedings of the second of the
- 9.10.6 AT&T shall also be enritled to (i) credits for delays by Ameritech in provisioning Network Elements pursuant to the terms and conditions agreed upon by the Implementation Team and (ii) any Credit Allowances pursuant to the same terms and conditions that the Ameritech offers Credit Allowances to its Customers. According including those described on Schedule 10.9.6
 - 9.10.7 The Parties' agreement to the procedures set forth in this Section 3.8 shall not (i) relieve either Party of its obligations to perform any other duties under this Agreement or (ii) constitute a waiver of a right of either Party to claim that the parity requirements of this Agreement and of the Act have or have not been met.

ARTICLE X RESALE AT WHOLESALE RATES—SECTION 251(c)(4)

- 10.1 Telecommunications Services Available for Resale at Wholesale Rates. Commencing on the date on which the Commission approves this Agreement, at the request of AT&T. Ameritach will make available to AT&T for resale at wholesale rates those Telecommunications Services that Ameritach provides at retail to subscribers who are not Telecommunications Service provides or carriers, as required in Section 251(c)(4) of the Act. Subject to the terms, conditions and limitations set forth in this Agreement, Ameritach will make available to AT&T for such retail all Telecommunications Services which it offers to its retail Customers, including the following categories of Telecommunications Services (the "Resale Services") as more specifically listed on Schedule 10.1:
 - (i) Local Service Residence, as described in the applicable tariff;

MPSC Case No. U-11104 Attachment A Question 4

Exhibit 4.8

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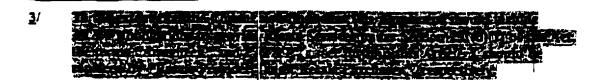
- (ii) Local Service Business, as described in the applicable tariff;
- (iii) Message Toll Service, as described in the applicable tariff;
- (iv) PBX Trunk, as described in the applicable tariff;
- (v) ISDN Direct Service, as described in the applicable tariff:
- (vi) ISDN Prime Services, as described in the applicable tariff:
- (vii) Amerirech Centrix Service, as described in the applicable tariff:
- (viii) Dedicated Communications Services, as described in the applicable tariff;
- (ix) Inbound Services, as described in the applicable tariff; and
- (x) Customer Owned Pay Telephone Services, as described in the applicable tariff.

The Resale Services shall be made available to AT&T at the rates set forth at Item VI of the Pricing Schedule.

- 18.2 Other Services. Ameritech may, at its sole discretion, and as agreed to by AT&T, make available to AT&T under this Agreement services other than Telecommunications Services (e.g., voicemail) for resale at rates, terms and conditions agreed upon by the Parties.
 - 18.3 Limitations on Availability of Resale Services.

The following limitations shall apply to Resale Services:

10.3.1 Any Telecommunications Services which American offers to existing retail subscribers, but not to new subscribers ("Grandfathered Services") are listed on Schedule 10.3.1. Schedule 10.3.1 may be revised or supplemented from time to time to include those additional services that American may, in its discretion and to the extent permitted by Applicable Law, classify as Grandfathered Services. American agrees to make Grandfathered Services available to AT&T for result to any Customer of American that subscribes to a



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QUESTION

- 5. To the extent the following information is available to Ameritech Michigan or its affiliates indicate the following:
 - a. The number of access lines in the state served by Ameritech Michigan's local competitors;
 - b. The number and location of Ameritech Michigan's or its affiliates' central offices or switches that are connected to local loops served by competitors;
 - c. The geographic areas within Michigan in which Ameritech Michigan's competitors operate. It is not sufficient to simply identify the entire state or repeat the licensed service territory of the competitor. The Commission desires more specificity;
 - d. The number and type of customers that are served by Ameritech Michigan's competitors.

For the purposes of these items, any affiliate of Ameritech Michigan is not considered a competitor of Ameritech Michigan. In addition, if this information is not available to Ameritech Michigan or its affiliates, an explanation of how Ameritech Michigan or its affiliates intends to prove the extent of competition in the state of Michigan is required.

RESPONSE

a. Ameritech does not have a precise count of competitive local exchange carrier (CLEC) access lines. Ameritech has some indicators of CLEC access line activity that provide approximations, but these approximations appear to be biased low. Further, the data shows that CLECs have the potential to add significant numbers to their existing base of access lines at minimal cost.

One indicator of CLEC access lines is given by an October 24, 1996 press release by Brooks Fiber describing the results of its Grand Rapids, Michigan operations. See Brooks Fiber Properties, Inc., "Brooks Fiber Reports Results of Operation of Grand Rapids Michigan Unit for Competitive Switches Services," >>http://www.brooks.net.com<<, October 24, 1996, copy attached to response to Question 2. Brooks said that the company had 12,154 lines in service. Brooks also said that 1/3 of its lines were served by Brooks' self-provided loops, and 2/3 of its lines were served by Ameritech unbundled loops.

Brooks is but one of 15 firms that are licensed (or obtaining a license) to serve in areas of Michigan currently served by Ameritech, but the other firms have not released to the public the number of lines that they serve. Accordingly, only approximations of the total number of CLEC-served lines can be provided. Table 5.a.1 lists some of these indicators and shows their latest available values. The columns in the table are defined as follows:

<u>Unbundled Loops</u>: The number of unbundled loops leased by the CLEC from Ameritech provides an indicator of CLEC-served access lines. However, because CLECs can also self-provision loops (which is especially important with "on-net" business customers whose buildings connect directly to a CLEC SONET ring), the number of unbundled loops undercounts the number of CLEC access lines. (For example, according to their October 24, 1996 release, Brooks Fiber has 12,154 lines in service, one-third of which are self-provided, two-thirds of which are served by Ameritech unbundled loops.)

Numbers Disconnected: A tally stroke is accumulated each time a CLEC informs Ameritech that a number is to be disconnected because the customer has elected to obtain service from the CLEC. Disconnects due to normal inward and outward movement are not included in this measure. Numbers disconnected is biased low as an indicator of CLEC loops primarily because it excludes new CLEC customers who do not disconnect from Ameritech, such as residences or businesses that add lines or parties who move into the area or new lines added by customers.

Numbers Ported: A CLEC may request that a number be ported so that the customer does not have to change telephone numbers when changing carriers. At present, numbers are ported via Remote Call Forwarding (RCF) or by Direct Inward Dial (DID) trunking. Numbers ported shown in the table is biased low as an indicator of loops because: (1) it excludes new or added lines; (2) in some cases, customers willingly change their numbers when they switch carriers; and (3) at present, only RCF-ported numbers are accounted for by Ameritech's systems, whereas many ported numbers are via DID.

Reciprocal Compensation Minutes of Use: RC-MOU reflects traffic traded between the CLEC network and the Ameritech network. Traffic can originate on the CLEC network and terminate on the Ameritech network or vice versa. RC-MOU provides an indirect measure of CLEC loops based on the rough assumption that a typical residential line in Michigan generates about 652 minutes per month, while the typical business line generates about 312 minutes per month. Converting RC-MOU into the approximate number of loops served by CLECs therefore depends on the mix of CLEC-served business and residence loops, which Ameritech does not have. It should be

further noted that RC-MOU is biased low as an indicator of CLEC loops because it does not account for intraCLEC or CLEC-to-CLEC traffic.

End Office Integration Trunks: A CLEC obtains EOI trunk groups to exchange traffic between its network and Ameritech's network. Each trunk is capable of handling a single phone call at a time, and a rule of thumb is that a trunk will handle about 9,000 minutes per month, or approximately 14 lines. Based on the FCC order in FCC Docket 91-213 (Transport Rate Structure) at footnote 112, "we find a loading factor of 9,000 to be a reasonable number." The number of minutes implies that a typical trunk serves approximately 14 lines. EOI trunks, therefore, are an indirect measure of traffic and CLEC loops. EOI trunks are biased low as an indicator of CLEC loops because they would not account for intraCLEC or CLEC-to-CLEC traffic.

<u>CLEC-Owned NXXs</u>: An NXX refers to the first three digits of a phone number (excluding the area code). Each NXX is capable of supporting approximately 10,000 customer lines (i.e., 0000 through 9999).

Table 5.a.1 shows that the number of unbundled loops in September is 11,774. If all CLECs in Michigan were to obtain 1/3 of their customers through their own loops (as Brooks said it did), the 11,774 unbundled loops would imply a total of 17,661 CLEC-served lines. To the extent that other CLECs serve a higher proportion of customers through self-supplied loops, the estimate of 17,661 CLEC-served lines would be biased low.

The cumulative number of telephone numbers disconnected at the CLECs' request stood at 19,572 in September. This provides a second estimate of the number of CLEC-served lines, and one that is higher than the estimate derived by examining the number of unbundled loops.

A third estimate is obtained from the number of telephone numbers ported to the CLEC, which stood at 15,571 in September.

These three methods of estimating CLEC-served loops produce estimates between 15,000 and 20,000. However, Ameritech believes that the number of loops thus estimated is biased downward for the reasons described earlier.

One indication of the severity of the bias is made by comparing the loop estimates with the number of EOI trunks serving CLECs. For example, dividing the mid-point of the estimates by the number of EOI trunks produces a figure of 2.5 (i.e., 2.5 = 17,500 - 6,874). In other words, using an estimate of 17,500 CLEC-supplied lines implies that CLECs are engineering

only 2.5 lines per trunk. In contrast, 14 lines per trunk is a typical rule of thumb engineering assumption in telecommunications.

In sum, the data available to Ameritech can provide only part of the picture regarding the number of access lines served by CLECs. The most direct indicators suggest loops in the range from 15,000 to 20,000. However, contrasting the direct estimate of loop counts with the facilities that the CLECs have put in place to exchange traffic with Ameritech demonstrates that these estimates have a severe downward bias.

More important than the current number of lines that CLECs currently serve is the number to which competitors have immediate access. Ameritech's response to Question 5.b will list the wire centers that contain unbundled local loops served by competitors. But Table 5.a.2 shows some of the key features of these wire centers.

Table 5.a.2 shows that as of October 24, CLECs obtain their unbundled loops in 12 of Ameritech's 336 Michigan wire centers, or 3.5% of all wire centers (line 2). These wire centers account for 426,119 (10%) of Ameritech's total loops in Michigan and about \$277 million (11%) of the revenues (line 3).

In addition, the wire centers with CLEC loops are those that are cheapest to serve, with densities (access lines per square mile) 8 times higher than the wire centers ignored by the competition (line 6). Table 5.a.2 conclusively shows that the most profitable of Ameritech's access lines are open to competition by one or more competitive LECs.

Finally, the rate of growth in all of the competitive indicators shown in Table 5.a.1 demonstrates the importance of considering this CLEC market potential rather than a snapshot in time of CLEC market position. The indicators of CLEC loops shown in Table 5.a.1 are increasing at annualized rates of over 100%. The high growth rates imply that CLECs are having no trouble accessing the customers that they wish to serve.

- b. Table 5.b.1 lists the names and addresses of Ameritech Michigan wire centers in which CLECs currently have deployed unbundled loops. (See Table 5.b.1)
- c. Ameritech is aware of CLEC facilities in the form of: (1) unbundled loops in Ameritech wire centers; (2) colocation of equipment in Ameritech wire centers (which includes, but is not limited to, unbundled loops); and (3) outside plant or other CLEC assets observed in the normal course of business. Table 5.c.1 lists the areas (wire centers) for each of the above items. Most of the areas listed in the table are in or nearby Detroit or Grand Rapids.

Table 5.c.2 presents an economic analysis of the wire centers in which there is colocation (including, but not limited to, colocation providing access to unbundled loops). Table 5.c.2 tells the same story that the unbundled loop analysis showed in the response to Question 5.a. Table 5.c.2 shows that the 21 wire centers account for 676,585 (15.8%) of Ameritech's access lines and \$447 million (18%) of Ameritech's revenues. The wire centers with colocation, on average, are 8.5 times denser (more access lines per square mile), and hence, cheaper to serve than the average wire center without colocation.

d. Ameritech Michigan has no exact count of the number of CLEC customers. One indicator of the number of CLEC-served customers may be provided by the number of directory listings that CLECs have. As of September 30, 1995, 5,455 CLEC-served customers were in Ameritech's listings database. Of these, 1,843 were business customers, and the rest were residence customers. This number is biased low because it does not include non-listed or non-published customers, and in Michigan, a significant number of customers choose one of these two options.

TABLE 5.a.1
INDICATORS OF CLEC-OWNED ACCESS LINES

	UNBUNDLED LOOPS SOLD	NUMBERS DISCONNECTED	NUMBERS PORTED	RECIP, COI CLEC TO AIT	MP MOU AIT TO CLEC	EOI TRUNKS	NXXs
Sept 95				708,735	1,799,906		
Oct 95				1,126,812	2,758,061		
Nov 95				1,708,056	2,580,735		
Dec 95	2,919	7,822	5,854	2,116,206	4,591,742		61
Jan 96	3,765	8,612	6,494	2,659,785	6,541,539		61
Feb 96	4,558	9,402	7,110	3,052,243	7,767,458		61
Mar 96	5,178	9,933	7,464	2,449,728	8,742,542		89
Apr 96	5,750	10,928	8,137	2,175,467	8,979,119		89
May 96	6,898	11,652	8,545	2,726,971	10,514,940	5,524	89
Jun 96	7,708	12,273	9,063	3,000,662	15,564,184	5,908	89
Jul 96	9,000	18,056	14,636	4,042,209	23,199,086	5,956	97
Aug 96	10,539	18,813	15,057			6,388	97
Sep 96	11,774	19, 572	15,571			6,874	97
Oct 96						7,426	

TABLE 5.a.2

WIRE CENTER UNBUNDLED LOOP ANALYSIS - MICHIGAN

	Wire Ce	nters with Unbu	ndled Loops			
		Actuals		Perce	ent of Total	
	Yes	No	Total	Yes	No	Total
1. Wire Centers	12	324	336	3.6%	96.4%	100.0%
2. Access Lines	426,119	3,845,478	4,271,597	10.0%	90.0%	100.0%
3. Revenues (\$000s)	277,176	2,209,789	2,486,965	11.1%	88.9%	100.0%
4. Square Miles	319	23,939	24,258	1.3%	98.7%	100.0%
5. Revenue/AL	650	575	582	111.7%	98.7%	100.0%
6. AL/Sq. Mi.	1,336	161	176	758.6%	91.2%	100.0%

Data as of October 24,1996

TABLE 5.b.1

Ameritech-Michigan Wire Centers that are Connected to Local Loops Served by Competitors
As of October 24, 1996

NAME	ADDRESS	CLLI
Centerline	7460 E. Ten Mile, Centerline, Mi.	CNLNMIMN
Dearborn	17651 Michigan, Dearborn, MI	DRBRMIFB
Detroit Bell	1365 Cass Ave., Detroit, MI	DTRTMIBL.
Dutton	3158 68th St. SE, Dutton, Mi.	DTTNMIMN
Grand Rapids Bell	114 N. Division, Grand Rapids, MI	GDRPMIBL.
Grand Rapids East	1676 E. Paris, Grand Rapids, MI	GDRPMIES
Grand Rapids South	1167 Cass Ave. SE, Grand Rapids, MI	GDRPMISO
Hudsonville	6587 Balsam Dr., Hudsonville, Mi.	HDVLMIMN
Holland	13 W. Tenth St., Holland, MI	HLLDMIMN
Southfield	25189 Lahser Rd., Southfield, MI	SFLDMIMN
Warren	34480 Van Dyke, Warren, MI	WRRNMIMN
Wyoming Lenox	4366 Byron Center Rd., Wyoming, MI	WYNGMILX
TOTAL		12

TABLE 5.c.1

AMERITECH MICHIGAN

LIST OF AREAS AND WIRE CENTERS WITH COMPETITIVE ACTIVITY

AREA (of WIRE CENTER)	UNBUNDLED	COLLOCATION	OTHER*
A - 1 1 101-	LOOPS		X
Aubum Hills			x
Bingham Farms			
Birmingham			X
Bioomfield			X
Centerline	X	X	X
Comstock Park		X	
Detroit Madison	<u> </u>	X	X
Detroit Bell	X	X	X
Dearborn Fairborn		X	X
Detroit Riverfront		X	X
Dutton	X	X	
Farmington			X
Franklin			
Grand Rapids Bell	X	X	X
Grand Rapids East	X	X	X
Grand Rapids Empire	X	X	X
Grand Rapids South	, X	X	X
Grand Rapids West		X	X
Holland Main	X	X	
Hudsonville	X	X	
Livonia			X
Plymouth			X
Pontiac			X.
Rochester			X
Royal Oak			X
Southfield Main	X	X	X
Sterling Heights			X
Troy Main		X	Х
Troy Somerset		X	X
Warren Main	 	X	X
Warren Techline	 	X	X
Wyoming Lenox	X	X	X
Zeeland		X	X

^{*}Primarily outside plant, but may include points of presence and CLEC switches.

TABLE 5.c.2
WIRE CENTER COLLOCATION ANALYSIS - MICHIGAN

		Actuals		Perce	ent of Total	
	Yes	No	Total	Yes	No	Total
1. Wire Centers	21	315	336	6.3%	93.8%	100.0%
2. Access Lines	676,585	3,595,012	4,271,597	15.8%	84.2%	100.0%
3. Revenues (\$000s)	447,016	2,039,949	2,486,965	18.0%	82.0%	100.0%
4. Square Miles	521	23,737	24,258	2.1%	97.9%	100.0%
5. Revenue/AL	661	567	582	113.5%	97.5%	100.0%
6. AL/Sq. Mi.	1,229	151	176	737.5%	86.0%	100.0%

Data as of October 24,1996

QUESTION

- 6. With respect to the facilities and/or networks of Ameritech Michigan's competitors identify:
 - a. The extent to which each competitor is using its own facilities to provide service as compared to the use of unbundled elements or resold services obtained from Ameritech Michigan or its affiliates;
 - b. Whether each competitor is currently constructing facilities in Michigan or has announced the intention to do so within a specified time period;
 - c. A comparison of the provision intervals and maintenance time for services Ameritech Michigan or its affiliates provides to competitors and to itself.

RESPONSE

a. All of the CLECs licensed to provide local exchange service in Michigan (as per Response 1.a) have the option of self-supplying switching, loop, and transport facilities, purchasing these items as unbundled network elements, or a mix of both self-supply and purchase. The CLECs may also resell Ameritech's retail services.

Table 5.c.1 provided in the response to Question 5.c illustrates the extent of CLEC facilities to provide service. Colocation, the areas where CLEC plant has been observed, and the existence of unbundled loops are evidence of CLEC facilities in the area.

In addition, Table 6.a.1 shows that some of the CLECs licensed to provide service in Michigan have installed their own switches and networks. The table shows that CLECs own and operate SONET network facilities in the Detroit and Grand Rapids areas. The table also describes some of the switches, electronics, and other items in the CLEC networks to the extent known.

In addition, Table 6.a.1 shows that some of the CLECs licensed to provide service in Michigan have installed their own switches and networks. The table shows that CLECs own and operate SONET network facilities in the Detroit and Grand Rapids areas. SONET facilities are local area networks built on the "ring" architecture – as opposed to the traditional "star" architecture used by most LECs. SONET facilities can be used for local service or for long distance access services. Table 6.a.1 describes some of the switches, multiplexers, and

other electronics that the CLECs use in their networks to the extent that this information is available.

Maps of some of the backbone networks are attached.

b. One indication of CLEC construction activity is found by examining colocation activity within Ameritech. At present, Ameritech is performing colocation work for CLECs in Grand Rapids, Lansing (main, northwest, and south), East Lansing, Detroit (Bell), Troy (main and Somerset), Livonia, Wayne, Plymouth, and Northville.

Another indication of CLEC construction activity is found by examining the growth in End Office Integration Trunks. According to Table 5.a.1, CLECs have added 1,902 trunks during the five-month period since May 1996. The addition of trunks gives the CLECs the capability of exchanging additional minutes of traffic with Ameritech and suggests that CLECs are adding the facilities necessary to handle this growth. A third indication are the attached public announcements.

c. The following describes Ameritech Michigan's current provisioning intervals and maintenance times with regard to interconnection, unbundled access, and resale:

Ameritech Interconnection Performance Benchmarks

	<u>Volume</u>	Interval
Trunk Provisioning Intervals	1 to 48	5 business days
	25 to 48	6 business days
	49 to 96	7 business days
	97 or more	Negotiated
Trunking Grade of Service	Blocking Standards	Measurement
_	Exchange Access Tariff	1/2 of 1% (.005)
	All Other Traffic	1% (.01)
Trunk Service Restoral	Trouble Type	Measurement
	Service Affecting	Within 1 hour
	Non-Affecting Service	Within 24 hours

Non-DS1 Unbundled Loop - Standard Customer Intervals

Volume	Interval
1 - 24	5 business days
25 - 48	6 business days
49 - 96	7 business days
97 or more	Negotiated

DS1 Unbundled Loop - Standard Customer Intervals

Volume	Interval
1 - 4	5 business days
5 or more	Negotiated

DS1 Unbundled Transport

On-Network Building	5 days
Facilities and Force Available	7 days
• Facilities or Force Not Available	Negotiated
DS3 Unbundled Transport	Negotiated
OC-3 Unbundled Transport	Negotiated
OC-12 Unbundled Transport	Negotiated
OC-48 Unbundled Transport	Negotiated

Ameritech Michigan will maintain records necessary to calculate its performance with respect to each of the performance benchmarks. This information will be provided to the interconnecting party by the 22nd day of the following month in a self-reporting format such that both parties can determine Ameritech Michigan's compliance with the performance benchmarks.

The following data represents the most recent results available for services provided to competitors and results for all basic regulated services:

Michigan (September Results)

	Due Dates Met	Trouble Report Rate
Loops	97.6%	1.8%
SPNP	97.9%	.008%